Reply to Office Action dated December 15, 2003

IN THE CLAIMS

1. (Currently Amended) A laminated glazing material with properties of acoustic insulation and mechanical strength, said glazing material comprising two glass sheets and a single-ply intermediate layer abutting the two glass sheets, the intermediate layer being in the form of a polymeric film and having a thickness, wherein the thickness of the intermediate layer is equal to at least $d_{ref} J_{ref} J_c$, where:

 J_c is a critical energy value specific to a material of the intermediate layer and representative of an energy necessary for propagation of a crack initiated in the intermediate layer;

J_{ref} is a reference critical energy value which corresponds to a critical energy value of a polyvinyl butyral (PVB) film and is equal to 35,100 J/m² for a temperature of 20°C and for a drawing rate of 100 mm/min applied to the PVB film; and

d_{ref} is a reference thickness which corresponds to that of the PVB film and is equal to 0.38 mm.

wherein the intermediate layer satisfies acoustic property criteria defined by a bar of 9 cm length and 3 cm width, made of laminated glass comprising two glass sheets of 4 mm thickness joined by the intermediate layer having a thickness of 2 mm, has a critical frequency which differs at most by 35% from that of a glass bar having a same length, a same width and a thickness of 4 mm.

- 2. (Cancel)
- 3. (Currently Amended) The A laminated glazing material according to Claim 1 with properties of acoustic insulation and mechanical strength, said glazing material comprising

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intermediate layer being in the form of a polymeric film and having a thickness, wherein the thickness of the intermediate layer is equal to at least d_{ref} J_{ref}/J_c, where:

 J_c is a critical energy value specific to a material of the intermediate layer and representative of an energy necessary for propagation of a crack initiated in the intermediate layer;

Iref is a reference critical energy value; and

dref is a reference thickness,

wherein the intermediate layer has a loss factor greater than 0.6 and a shear modulus of between 1×10^8 and 2×10^7 N/m² in a temperature range of between 10 and 60°C and in a frequency range of between 50 and 10,000 Hz.

- 4. (Cancel)
- 5. (Cancel)
- 6. (Cancel)

7. (Currently Amended) A polymer film having a thickness for use as only one intermediate layer of a laminated glazing material, wherein the thickness is equal to at least $d_{ref} J_{ref} J_c$, where:

J_c is a critical energy value specific to a material of the intermediate layer and representative of an energy necessary for propagation of a crack initiated in the intermediate layer;

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J_{ref} is a reference critical energy value which corresponds to the critical energy value of a polyvinyl butyral (PVB) film and is equal to 35,100 J/m²-for a temperature of 20°C and for a drawing rate of 100 mm/min applied to the PVB film; and

d_{ref} is a reference thickness which corresponds to that of the PVB film and is equal to 0.38 mm.

wherein the intermediate layer satisfies acoustic property criteria defined by a bar of 9 cm length and 3 cm width, made of laminated glass comprising two glass sheets of 4 mm thickness joined by the intermediate layer having a thickness of 2 mm, has a critical frequency which differs at most by 35% from that of a glass bar having a same length, a same width and a thickness of 4 mm.

- 8. (Cancel)
- 9. (Cancel)
- 10. (Cancel)
- 11. (Currently Amended) The A polymer film according to Claim 7 having a thickness for use as only one intermediate layer of a laminated glazing material, wherein the thickness is equal to at least $d_{ref} J_{ref}/J_c$, where:

J_c is a critical energy value specific to a material of the intermediate layer and representative of an energy necessary for propagation of a crack initiated in the intermediate layer;

J_{ref} is a reference critical energy value; and

dref is a reference thickness,

wherein the intermediate layer has a loss factor greater than 0.6 and a shear modulus

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of between 1×10^8 and 2×10^7 N/m² in a temperature range of between 10 and 60°C and in a frequency range of between 50 and 10,000 Hz.

- 12. (Previously Presented) The laminated glazing material according to Claim 1, wherein the polymer film is a composite comprising a polymer and reinforcing fibers embedded in the polymer.
- 13. (Previously Presented) The polymer film according to Claim 7, wherein the intermediate layer is a composite comprising a polymer and reinforcing fibers embedded in the polymer.
- 14. (New) The laminated glazing material according to Claim 1, wherein the reference critical energy value corresponds to a critical energy value of a polyvinyl butyral (PVB) film and is equal to 35,100 J/m² for a temperature of 20°C and for a drawing rate of 100 mm/min applied to the PVB film, and wherein the reference thickness corresponds to that of the PVB film and is equal to 0.38 mm.
- 15. (New) The laminated glazing material according to Claim 3, wherein the reference critical energy value corresponds to a critical energy value of a polyvinyl butyral (PVB) film and is equal to 35,100 J/m² for a temperature of 20°C and for a drawing rate of 100 mm/min applied to the PVB film, and wherein the reference thickness corresponds to that of the PVB film and is equal to 0.38 mm.
- 16. (New) The polymer film according to Claim 7, wherein the reference critical energy value corresponds to the critical energy value of a polyvinyl butyral (PVB) film and is equal to 35,100 J/m² for a temperature of 20°C and for a drawing rate of 100 mm/min applied to the PVB film, and wherein the reference thickness corresponds to that of the PVB film and

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is equal to 0.38 mm.

17. (New) The polymer film according to Claim 11, wherein the reference critical energy value corresponds to the critical energy value of a polyvinyl butyral (PVB) film and is equal to 35,100 J/m² for a temperature of 20°C and for a drawing rate of 100 mm/min applied to the PVB film, and wherein the reference thickness corresponds to that of the PVB film and is equal to 0.38 mm.

- 18. (New) The laminated glazing material according to Claim 3, wherein the polymer film is a composite comprising a polymer and reinforcing fibers embedded in the polymer.
- 19. (New) The polymer film according to Claim 11, wherein the intermediate layer is a composite comprising a polymer and reinforcing fibers embedded in the polymer.